

# **The Relationship Between Multicultural Education and Academic Achievement: The Quantitative Evidence**

## **Research Objectives**

A central promise of multicultural education (MCE) and/or cultural relevant pedagogy (CRP) is that it will promote academic achievement and equality of educational opportunity, in particular for pupils from marginalized communities. However, there is little direct quantitative evidence that support this claim (Cummins, 2015). The reason for the absence of quantitative evidence is *not* that the relationship between MCE/CRP and academic achievement is nonexistent, but simply the fact that most studies on MCE and CRP use a qualitative approach (see Alviar-Martin & Ho, 2011; Kobayashi, 2012; Walker, 2011). On the one hand, these studies have greatly contributed to our understanding of the topic, and they have been crucial for identifying the knowledge, skills, and beliefs required by teachers to respond to growing ethnic diversity in the classroom. On the other hand, an exclusively qualitative approach has important limitations. The small sample sizes and the lack of a comparative perspective within many of these studies do not allow for generalizations (Montecinos, 2004). Even well designed qualitative studies, that are able to generate hypotheses and to refute theoretical propositions, are largely dismissed as having little policy-relevance (see Cummins, 2015). As a consequence, the key promise of MCE (i.e. its positive impact on academic achievement), remains largely untested, and unfortunately, dismissed by many policymakers. Therefore, the first and the main objective of this study is to examine whether the multicultural content integrated in the classrooms by teachers has a positive effect on the academic performance of pupils. Secondly, the great part of research on MCE seems to focus on how it is related to the schooling experience of ethnic minority and immigrant pupils. Given the existing educational inequalities, the research focus on marginalized groups is reasonable. Still, it remains important to examine how MCE affect native-born/majority children. Therefore, we will not only examine how MCE is related to the academic performance of minority (immigrant) children, but also examine how the performance of native-born/majority children is affected by MCE.

## **Theoretical Perspective**

Scholars have proposed many different theoretical conceptualizations of MCE and CRP (see Banks, 1989, 1993; Gay, 2000; Ladson-Billings, 1995). In this study, we draw upon the theoretical writing of James Banks (1989, 1993) to frame how MCE is related to pupils' academic performance. Banks (1993) identifies five dimensions of multicultural education. The first dimension is content integration, which is defined as "the extent to which teachers use examples, data, and information from a variety of cultures and groups to illustrate key concepts, principles, generalizations, and theories in their subject area or discipline" (Banks, 1993, p. 5). The content-integration dimension is what most people associate with multicultural education. The second dimension is the knowledge construction process, described as the extent to which teachers stimulate students to understand and to critically investigate assumptions within the common knowledge base that tends to be biased against minority groups in the society. Third, the prejudice reduction dimension highlights lessons and activities used by teachers to help students to cultivate positive dispositions and attitudes toward different ethnic and cultural groups by cross-cultural interactions under favorable conditions. Fourth, the equity pedagogy dimension relates to teaching procedures, strategies and styles that improve the academic achievement of students from diverse groups. The last dimension,

empowering school culture and social structure, that help students from disadvantaged groups to be treated equitably.

Within these dimensions, Banks (1989) further identifies four approaches to multicultural content integration. Like a stage theory, each approach implies an improvement on the previous one. The first stage, then, is the contributions approach, which is the most common and the easiest way to incorporate multicultural content in the curriculum. Within the contributions approach, teachers focus on heroes and holidays (e.g., special days, weeks and months) that are considered important for ethnic minorities. This approach is not unproblematic as it often results in the trivialization of ethnic cultures and may reinforce the belief that ethnic minorities are not integral members of mainstream society. The second stage is the additive approach, which is used by teachers to integrate themes and examples about ethnic minority groups into the school curriculum. The additive approach is still limited in what it can achieve because the point of view of the curriculum's canon largely remains unchanged. The third stage is the transformative approach. Within the transformative approach, teachers stimulate students to reflect upon a variety of concepts and themes from different cultural points of view; moreover, students are invited to imagine alternatives to, and even critique, the 'facts' as they are presented in the canonical view and found in most school textbooks. Finally, the fourth stage is the social action approach, in which the elements of the transformation approach are translated into social action by students. The major goal of the social action approach is to enable students to take political action within their schools and communities to actively address social problems such as racism and ethnic inequality.

The rationale behind the different dimensions and approaches is that a shift from benign neglect of students' cultures to a more multicultural orientation, i.e. when the instructional and pedagogical focus is broadened to include all students' cultural knowledge, this approach actively connects the school to the students' lives and it affirms the cultural repertoires of marginalized groups. In combination with prejudice and discrimination reduction, this way of teaching through a multicultural lens is expected to result in improved academic achievement, in particular for marginalized groups (see Cummins, 2015).

## Methods

### Data and analysis

We use quantitative data that are collected between 2008 and 2010, from 706 teachers and 2,845 pupils in a sample of 68 primary schools in Flanders, Belgium (see Agirdag, Van Houtte & Van Avermaet, 2012). Multistage sampling was conducted. In the first instance, to encompass the entire range of ethnic composition, three cities in Flanders were selected that had relatively ethnically diverse populations. Second, 116 primary schools were chosen within these cities and asked to participate; 54% of them agreed to. In schools that agreed to participate, all teachers were asked to fill in a questionnaire. All fifth-grade pupils were surveyed; if there were fewer than 30 fifth-grade pupils present, all sixth-grade pupils were surveyed as well. The pupils completed the questionnaires and a math achievement test in their classroom in the presence of one or two researchers. Given time limitations, not all curriculum subjects could be tested, so the focus was on math achievement because a large proportion of the respondents were not native Dutch speakers. While a total of 2,845 pupils completed the questionnaire, we will only use the sub-sample of native Belgian and Turkish students. Students are categorized as native Belgian if both their parents and grandmothers were born in Belgium ( $N = 1,178$ ). They are categorized as Turkish, if one of their parents or grandmothers was born in Turkey ( $N = 451$ ). Other students are excluded from the sample. The

analyses are separately conducted for the Turkish immigrant and native Belgian pupils. Because the data are at different levels, multilevel modeling is used.

### Variables

The central explanatory variable is *multicultural content integration*. To assess the degree to which teachers integrate MCE in their classroom, we used a Likert-type scale that consists of five statements (a) "In the classroom, I focus explicitly on the topic of ethnic diversity," (b) "I offer content that reflects all aspects of the multicultural society," (c) "Because of neutrality, I pay little attention to ethnic differences in the classroom" (reverse coded), (d) "I expose the multicultural social environment in the overall design and the furnishing of the classroom," and (e) "Ethnic diversity rarely occurs in the course material I use" (reverse coded). The reliability coefficient for the test was 0.735. (For the discussion of the validity, see Agirdag, Merry & Van Houtte, 2016). We use the standardized factor score as a measure of the level of multicultural content that a teachers integrate. We calculate the mean score of all teachers within a school to establish the level of MCE at the school level. The aggregate score is only calculated for schools where there were at least 5 teachers who filled in the questionnaire. Other schools were left-out from the analysis.

The dependent variable is *academic achievement*, measured by a math achievement test based on the national educational attainment levels for Flemish students. The test consists of 60 items, which cover elementary arithmetic, problem solving, fractions, decimals and long division. The reliability (alpha) coefficient for the test was 0.920. Scores are calculated by using a two-parameter Rasch Model.

We control for family SES, gender and grade and grade retention at student-level and school SES and immigrant composition at school level. Students' parental SES was measured by means of the occupational status of students' father and mother; the highest of both was used as an indicator of the family SES.

### Results

The results of the multilevel regression analysis revealed that there is a significant positive association between the level of MCE at school-level (i.e. the degree to which teachers in a school integrate multicultural content) and the academic achievement of Turkish immigrant pupils ( $b = 0.385$ ;  $p < 0.05$ ). In other words, Turkish immigrant pupils that are enrolled in schools where teachers focus more on MCE perform higher in math than Turkish pupils in schools with less MCE.

Also with respect to native Belgian students, we find a positive correlation between MCE and academic achievement, even though this association is not statistically significant ( $b = 0.204$ ;  $p = 0.215$ ). This means, that MCE seems to improve the academic performance of immigrant Turkish children, while it does not do any harm to the academic performance of native Belgian children.

### Significance of the study

Over the last three decades, most Western societies are severely challenged by educational inequalities across ethnic lines. Fears are that these inequities will continue to grow with increasing immigration. While the task of describing these disparities is straightforward, the question about what can be done is far more complex. In this study, we provided quantitative evidence that a promising path to achieve more equality is MCE. We found that MCE is related to higher academic achievement for immigrant pupils, while it does not harm the academic performance of native-born pupils.

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